

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MASSACHUSETTS**

INSITUFORM TECHNOLOGIES, INC.,)

)

Plaintiff,)

)

v.)

Case No. 04-10487GAO

)

AMERICAN HOME ASSURANCE)

COMPANY,)

)

Defendant.)

**PART III TO EXHIBIT A TO
AFFIDAVIT OF ROBERT L. KELLEY**

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ARTICLE 5 - INDEMNIFICATION**5.1 CONTRACTOR'S INDEMNITY**

5.1.1 The Contractor shall indemnify, defend with counsel acceptable to the Authority, keep and save harmless the Commonwealth of Massachusetts, the Authority and its consultants, the Engineer and its consultants, separate contractors, and their respective board members, officers, representatives, contractors, agents and employees, in both individual and official capacities, against all suits, claims, damages, losses and expenses, including but not limited to attorney's fees, caused by, arising out of, resulting from, or incidental to, the performance of the Work under this Contract by the Contractor or his Subcontractors to the full extent allowed by the laws of the Commonwealth of Massachusetts and not beyond any extent that would render these provisions void or unenforceable, provided that any such suit, claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom, and is caused in whole or in part by any default, negligence or act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such agreement and obligation of the Contractor shall not be construed to negate, abridge, or otherwise reduce any right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph 5.1.

5.1.2 The Contractor shall give prompt notice to the Authority in the event of any such injury (including death), loss or damage. Without limitation of the provisions of Subparagraph 1.2.10, if the Contractor's agreement to indemnify, defend and save harmless the Authority and the Engineer and the other indemnitees referred to above as provided herein against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting from the negligence of the Authority or the Engineer or such other indemnitees, respectively, shall to any extent be or be determined to be void or unenforceable, it is the intention of the parties that such circumstance shall not otherwise affect the validity or enforceability of the Contractor's agreement to indemnify, defend and save harmless the Authority and the Engineer and such other indemnitees, as provided herein, and in the case of any such suits, claims, damages, losses or expenses caused in part by the default, negligence or act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any

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of them or anyone for whose acts any of them may be liable, and in part by the Authority or the Engineer or any other such indemnitees, the Contractor shall be and remain fully liable on its agreements and obligations under this Paragraph 5.1 to the full extent permitted by law.

5.1.3 In any and all claims against the Authority or the Engineer or their consultants or separate contractors, or any of their subcontractors, agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the Contractor's indemnification obligation under this Paragraph 5.1 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under worker's or workmen's compensation acts, disability benefit acts or other employee benefit acts.

ARTICLE 6 - SUBCONTRACTORS

6.1 SUBCONTRACTORS

6.1.1 Unless otherwise required by the Contract Documents, the Contractor, as soon as practicable after the award of the Contract, shall furnish to the Authority and the Engineer in writing the names of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work. The Engineer will notify the Contractor in writing whether or not the Authority or the Engineer has objection to any such proposed person or entity. Failure of the Authority or Engineer to reply within a reasonable time shall constitute notice of no objection.

6.1.2 The Contractor shall not contract with any such proposed person or entity to whom the Authority or the Engineer has made objection under the provisions of Subparagraph 6.1.1. Subject to the provisions of applicable law, the Contractor shall not be required to contract with anyone to whom he has a reasonable objection.

6.1.3 If the Authority or the Engineer has objection to any such proposed person or entity, the Contractor shall submit a substitute to whom neither the Authority nor the Engineer has objection.

6.1.4 The Contractor shall make no substitution for any Subcontractor, person or entity previously selected if the Authority or Engineer makes objection to such substitution.

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6.1.5 The Contractor shall furnish the Authority with executed copies of all contracts with Subcontractors, promptly upon execution thereof.

6.2 SUBCONTRACT AGREEMENTS

6.2.1 The Contractor shall, by written agreement, require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by the Contract Documents, assumes toward the Authority and the Engineer. Said agreement shall preserve and protect the rights of the Authority and the Engineer under the Contract Documents with respect to the Work to be performed by the Subcontractor so that the subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the Contractor-Subcontractor agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Authority. The Contractor shall require each Subcontractor to enter into similar agreements with his Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of a subcontract with such Subcontractor, copies of the Contract Documents to which the Subcontractor will be bound by this Paragraph 6.2, and identify to the Subcontractor any terms and conditions of the proposed subcontract which may be at variance with the Contract Documents. Each Subcontractor shall similarly make copies of such Documents available to his Sub-subcontractors.

6.2.2 The Contractor shall require each Subcontractor to agree in writing that in the event of termination of the Contract for any reason, the Authority shall have the right (but shall have no obligation) to assume, and/or to assign to a general contractor or construction manager or other third party who is qualified and has sufficient resources to complete the Work, the rights of the Contractor under the sub-contract with such Subcontractor. In the event of such assumption or assignment by the Authority, the Subcontractor shall have no claim against the Authority or such third party for work performed by such Subcontractor or other matters arising prior to termination of the Contract, and the Authority or such third party, as the case may be, shall be liable only for obligations to the Subcontractor arising after such assumption.

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ARTICLE 7 - OTHER WORK

7.1 AUTHORITY'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

7.1.1 The Authority may perform other work related to the Project at the site with its own forces, have other work performed by utility suppliers, or award separate contracts for such work or other work on the site under these or similar conditions of the contract. If the fact that such other work is to be performed is not noted in the Contract Documents, notice thereof will be given to the Contractor prior to commencing such other work. If the Contractor believes that such performance of such other work not noted in the Contract Documents will cause delay or additional cost to him, he may make a claim therefor in accordance with applicable provisions of the Contract Documents.

7.2 MUTUAL RESPONSIBILITY

7.2.1 The Contractor shall provide the Authority and utility suppliers or other separate contractors proper and safe access to the site and a reasonable opportunity for the delivery and storage of materials and equipment and the execution of their work, and shall properly connect and coordinate the Work with theirs. Disputes arising with respect to delivery or storage of materials or equipment, or otherwise relating to coordination of the Work under this Contract with the work of separate contractors shall initially be submitted to the Engineer.

7.2.2 If any portion of the Contractor's Work depends for proper execution or results upon work of the Authority or any such utility supplier or other separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, inspect and promptly report to the Engineer any delays, discrepancies or defects in such other work discoverable as a result of prudent examination, testing and observation by the Contractor that render such other work unavailable or unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that such other work is fit and proper to receive the Contractor's Work, except as to defects not so discoverable.

7.2.3 Costs caused by delays or by improperly timed or defective work shall be borne by the party responsible therefor.

7.2.4 Should the Contractor cause damage to work or property of the Authority, or to other work at the site, the Contractor shall promptly remedy such damage.

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7.2.5 Should the Contractor cause damage to work or property of a separate contractor, the Contractor shall upon due notice promptly attempt to settle any claim or dispute with such other contractor by agreement, or otherwise to resolve the dispute. If such separate contractor sues or initiates a legal proceeding against the Authority on account of damage alleged to have been caused by the Contractor, the Authority shall notify the Contractor who shall defend such proceedings, if the Authority so requests, with counsel acceptable to the Authority at the Contractor's expense. If a judgment or award against the Authority arises from such proceedings, the Contractor shall pay or satisfy it and shall reimburse the Authority for all attorney's fees and court or other legal costs which the Authority has incurred.

7.2.6 If a dispute arises between the Contractor and separate contractors as to their responsibility for cleaning up as required by Paragraph 3.12, the Authority may clean up and charge the cost thereof to the contractors responsible therefor.

ARTICLE 8 - INSPECTION AND TESTING

8.1 INSPECTION AND TESTING

8.1.1 If the Contract Documents, laws, ordinances, rules, regulations or orders of, or conditions imposed by, any public authority having jurisdiction require any portion of the Work to be inspected, tested or approved, the Contractor shall give the Engineer, and if applicable public authorities requiring such inspection, testing or approval, timely notice (at least 24 hours) prior to the commencement of work or operations requiring such inspection, testing or approval so the Engineer or such public authorities may perform or observe such inspection, testing or approval. Except in the event of an unforeseen emergency, work or operations requiring such inspection, testing or approval shall not be performed at times other than during the normal working day without the prior approval of the Engineer. The Contractor will provide such assistance (including, without limitation, labor, tools, equipment, and water or land transportation) as the Engineer or such public authorities may request in connection with such inspection, testing or approval. The Contractor shall make all necessary arrangements at its expense to permit the Engineer to make factory, shop or other inspections of materials or products ordered for the Work and in the process of manufacture, fabrication or extraction or in storage at locations other than the site of the Work. The Authority or the Engineer may at their election retain the services of testing laboratories, agencies, or consultants, to perform such tests or inspections. The Contractor shall make no claim for delay or extension of the Contract Time arising

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directly or indirectly out of his failure to give timely notice so as to permit performance or observance of inspections, testing or approvals. Inspections of the Work shall not relieve the Contractor of any obligations under this Contract. Without limiting any other provisions hereof, defective work shall be made good and unsuitable materials may be rejected, notwithstanding that such work and materials have been previously inspected by the Engineer and accepted or estimated for payment or paid for.

8.2 SPECIAL TESTING

8.2.1 If the Engineer determines that any portion of the Work requires special inspection, testing, or approval which Paragraph 8.1 does not include, he will, upon written authorization from the Authority, instruct the Contractor to order such special inspection, testing or approval, and the Contractor shall give notice as provided in Paragraph 8.1. If such special inspection or testing reveals a failure of the Work to comply strictly with the requirements of the Contract Documents, the Contractor shall correct such Work and bear all costs of such inspection, testing and corrections, including compensation for the Engineer's additional services made necessary by such failure; otherwise the Authority shall bear the costs of such inspection or testing, and an appropriate Change Order shall be issued.

8.3 INSPECTION CERTIFICATES AND PERMITS

8.3.1 The Contractor shall obtain and deliver promptly to the Engineer at such times as may reasonably be required by the Engineer any certificates of inspection, testing or approval, including, where required by law, building code certificates of occupancy, certificates of compliance required under Title V of the State Environmental Code, and operating permits for any mechanical apparatus, which may be required by law to permit full use and occupancy of the Work by the Authority. In any event, receipt of all such permits and certificates by the Engineer shall be a condition precedent to Substantial Completion of the Work.

ARTICLE 9 - TIME

9.1 DEFINITIONS

9.1.1 The Contract Time is the period of time specified in Section 00500, Authority-Contractor Agreement within which the Contractor must achieve final completion of the Work, including adjustments thereto approved by the Engineer and the Authority as provided in the Contract Documents.

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9.1.2 Substantial Completion of the Work or designated portion thereof occurs when the requirements of Subparagraph 10.5.9 have been satisfied. The date or dates of Substantial Completion shall be established by certification of the Engineer.

9.1.3 The term "day" as used in the Contract Documents shall mean calendar day. The terms "working day" and "business day" shall mean any calendar day except Saturdays, Sundays, and legal holidays at the place of the Project.

9.2 PROGRESS AND COMPLETION

9.2.1 All time limits stated in the Contract Documents are of the essence of the Contract.

9.2.2 The Contractor shall begin the Work on the date of commencement as specified in Section 00500, Authority-Contractor Agreement. He shall carry the Work forward expeditiously with adequate forces and shall achieve final completion within the Contract Time. The Authority-Contractor Agreement may provide for liquidated damages to be paid to the Authority in the event final completion of the Work is not achieved within the Contract Time.

9.2.3 Whenever critical items of construction fall behind the planned schedule of construction, or when items which were not critical become critical, the Authority and the Engineer shall be notified by the Contractor and advised of action being taken to return the Project to its original schedule and such action shall be indicated on the construction progress schedule, if any, which shall then be re-issued by the Contractor.

9.2.4 If in any periodic estimate and request for payment it appears that the actual Work completed as certified by the Engineer is less than 90% (or such greater percentage as the Engineer may determine in his discretion) of the Work scheduled to be completed as of the date of such request for payment, the Authority may, at its option, require the Contractor to accelerate the progress of the Work, without cost to the Authority, by increasing the work force or hours of work, or by other reasonable means approved by the Authority. If the Contractor disputes such action by the Authority, he shall have no right to refuse to accelerate the Work, but his only recourse shall be to make a claim as provided in Article 19.

9.2.5 If each of three successive periodic estimates and requests for payment, as certified by the Engineer, indicate that the actual Work completed is less than 90% of the Work scheduled to be completed by the respective dates of such requests for payment, and if such failure is not caused by the Authority or by

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other reasons beyond the control of the Contractor, the Authority may exercise its rights and remedies as provided in Article 14, or may, at its option, treat the Contractor's delinquency as a default justifying the actions permitted under Article 16.

9.2.6 Nothing contained herein shall limit the Authority's right to damages for delays by the Contractor or any other rights or remedies of the Authority under the Contract Documents or by law.

9.3 DELAYS AND EXTENSIONS OF TIME

9.3.1 If the Contractor is delayed in the progress of the Work by any act or omission of the Authority or the Engineer, or an employee of either, or a separate contractor employed by the Authority (except when the contract with such separate contractor has been assigned to the Contractor), or by changes in the Work duly ordered by the Authority, or by strikes, fires, unusual delay in transportation not anticipatable and for which no alternative mode of transportation is available, unusually severe weather not anticipatable and preventing any continuation of operations by the Contractor, unavoidable casualties, or such other unforeseeable causes as are beyond the control of the Contractor and are not caused in whole or in part by any fault or negligence of the Contractor (other than delays occasioned by financial difficulties of the Contractor), then, except as provided in Sub-paragraph 9.3.7 below in the case of certain delays caused by the Authority, the Contractor's sole remedy shall be that the Contract Time shall be extended by Change Order for such reasonable period of time, if any, as the Engineer may determine is required due to the nature of the delay, all subject to the provisions of this Paragraph 9.3. The procedures set forth in, and all other provisions contained in, this Paragraph 9.3 are in addition to the provisions of the Contract Documents relating to procedures for Change Orders.

9.3.2 Whenever the Contractor claims an extension of the Contract Time, only the necessary delay caused to completion of the Work as a whole shall be considered in measuring or evaluating the extent of the delay. If, for example, extra work can be (or could have been) performed along with the regular work called for by the Contract Documents so as to reduce or eliminate a delay in the progress of the Work or some portion thereof, without causing necessary delay to such regular work, no claim for extension of the Contract Time shall be granted. In any event, even though a cause of delay meets all of the above conditions, any extension shall be granted only to the extent that the effect of such cause cannot be (or could not have been) avoided or mitigated by the exercise of all reasonable

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precautions, efforts and measures (including planning, scheduling and rescheduling), whether before or after the occurrence of the cause of delay. No extension shall be granted for a cause of delay which would not have affected the performance of the Contract were it not for the fault of the Contractor or for other delay for which the Contractor is not entitled to an extension of the Contract Time. Any reference in this Paragraph 9.3 to the Contractor shall be deemed to include Subcontractors and Suppliers, whether or not in privity of contract with the Contractor, and employees and others performing any part of the Contract, and all the foregoing shall, for this purpose, be considered as if they were agents of the Contractor.

9.3.3 The Contractor shall notify the Engineer as soon as possible of any cause that may delay the Work. The Contractor shall give written notice to the Engineer within ten days after the time that he knows or should know of any cause which will result (or has resulted) in delay for which he claims or intends to claim an extension of the Contract Time (including those causes which the Authority or the Engineer is responsible for or has knowledge of). Any such written notice shall (1) state that an extension is claimed; (2) identify the cause of delay; and (3) describe as fully as practicable at the time the nature and expected duration of the delay and its effect on the various portions of the Work.

9.3.4 The submission of such written notice within the time period provided above shall be a condition precedent to any extension of the Contract Time. The Engineer shall have no authority to modify or waive, expressly or by implication, such condition precedent, and any action or statement by the Engineer to such effect shall not be binding upon the Authority. Since the possible necessity for an extension of the Contract Time might materially alter the scheduling, plans and other actions of the Authority, and since, with sufficient opportunity, the Authority might (if it knew of the Contractor's claim) attempt to mitigate the effect of a delay for which an extension of the Contract Time was to be claimed, and since merely oral notice might cause disputes as to the existence or substance thereof and notice long after the event would seriously hinder or prevent the Authority's investigation of the pertinent facts, the giving of written notice within the time period stated above shall be of the essence of the Contractor's obligations and failure of the Contractor to comply with these requirements shall be a conclusive waiver of a claim for extension of the Contract Time. It shall in all cases be presumed that no extension or further extension of the Contract Time is due unless the Contractor shall affirmatively demonstrate to the satisfaction of the Engineer and the Authority that it is. To this end the Contractor shall

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maintain adequate records supporting any claim for an extension of the Contract Time, and in the absence of such records the foregoing presumption shall be deemed conclusive.

9.3.5 After written notice has been given by the Contractor as provided above, the Engineer may, at such time as he deems appropriate, require the Contractor to submit to the Engineer, on or before a date specified in writing, whatever records, data and explanation support, in the Contractor's view, his claim for extension of the Contract Time. Within a reasonable time (to be determined by the Engineer) after the date on which the Contractor submitted or should have submitted such records, data and explanation, the Engineer shall render a decision in writing with respect to the Contractor's claim for extension of the Contract Time and shall deliver a copy of such decision to the Authority. The decision shall include a statement as to the number of days, if any, by which the Contract Time (or the time stated in the Contract Documents for completion of a designated portion of the Work) is extended. The decision of the Engineer shall be final and conclusive with respect to all questions relating to an extension of the Contract Time (or the time for completion of a designated portion of the Work), including, in particular, (1) whether a claim by the Contractor for an extension of time should be granted, and (2) if so, the appropriate period of any such extension. The Engineer may, in his discretion, but need not, defer any such decision until after completion of the Work, but any such decision shall be made before payment of the final payment by the Authority.

9.3.6 No claim for delay shall be allowed on account of failure of the Engineer or any engineer or other consultant to furnish instructions or drawings, grant approvals, or return Shop Drawings, Product Data or Samples until expiration of the maximum time periods provided in Subparagraph 2.1.7 for making of such interpretations or approvals, and not then unless such claim be reasonable.

9.3.7 The following clauses (a) and (b) of this Subparagraph 9.3.7 are included herein pursuant to requirements of Section 390 of Chapter 30 of the Massachusetts General Laws. In the event that suspension, delay, interruption or failure to act of the Authority increases the cost of performance to any Subcontractor, the Subcontractor shall have the same rights against the Contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the Contractor against the Authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the Contractor or the Subcontractor may have against each other.

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(a) The Awarding Authority may order the Contractor in writing to suspend, delay, or interrupt all or any part of the Work for such period of time as it may determine to be appropriate for the convenience of the Awarding Authority; provided, however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the Awarding Authority to act within the time specified in this Contract, the Awarding Authority shall make an adjustment in the Contract Sum for any increase in the cost of performance of this Contract but shall not include any profit to the Contractor on such increase; and provided further, that the Awarding Authority shall not make any adjustment in the Contract Sum under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this Contract provides for an equitable adjustment of the Contract Sum under any other contract provisions.

(b) The Contractor must submit the amount of a claim under provision (a) to the Awarding Authority in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this Contract and, except for costs due to a suspension order, the Awarding Authority shall not approve any costs in the claim incurred more than twenty (20) days before the Contractor notified the Awarding Authority in writing of the act or failure to act involved in the claim.

ARTICLE 10 - PAYMENTS AND COMPLETION

10.1 CONTRACT SUM

10.1.1 The Contract Sum is stated in Section 00500, Authority-Contractor Agreement and, including adjustments thereto authorized in accordance with the Contract Documents, is the total amount payable by the Authority to the Contractor for the performance of the Work under the Contract.

10.2 PERIODIC ESTIMATES AND REQUESTS FOR PAYMENT

10.2.1 The Contractor shall submit to the Engineer for his review a periodic estimate requesting payment of the amount due the Contractor for the work completed as of the date of the periodic estimate. Such periodic estimates shall be on a form provided or approved by the Authority and shall be based upon the approved schedule of values, if any, and shall be accompanied by such certifications, accountings, invoices, payrolls, receipted bills and other supporting documentation and information substantiating the Contractor's right to payment as

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the Engineer or the Authority may request. The periodic estimates shall show the total value of the work performed and materials furnished by the Contractor and each Subcontractor to date, the value of the work completed during the payment period and the percentage of completion to date for each line item of work. The term "Application for Payment" as used in the Contract Documents shall have the same meaning as the term "periodic estimate" as used in this Article 10.

10.2.2 Such periodic estimates may include materials or equipment not incorporated in the Work but delivered and suitably stored at the site and, if approved in advance in writing by the Engineer, payment may be requested for materials or equipment suitably stored at some other location agreed upon in writing in accordance with Paragraph 10.12. Without limiting the provisions of Subparagraph 10.2.1, payments for materials or equipment stored on or off the site shall be conditioned upon submission by the Contractor of bills of sale, invoices or such other documents, information or procedures as may be required by the Engineer or the Authority to establish the Authority's title to such materials or equipment free and clear of all liens, claims, security interests or encumbrances (collectively referred to in the Contract Documents as "liens"), or otherwise to protect the Authority's interests, including provision for appropriate property insurance and transportation to the site for those materials and equipment stored off the site.

10.2.3 The Contractor warrants that title to all Work, materials and equipment covered by a periodic estimate will pass to the Authority either by incorporation in the construction or upon the receipt of payment by the Contractor, whichever occurs first, free and clear of all liens, and that no Work, materials or equipment covered by a periodic estimate shall have been acquired by the Contractor, or by any other person performing Work at the site or furnishing materials and equipment for the Project, subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or any other secured party or otherwise imposed by the Contractor or any other person.

10.3 RECOMMENDATION FOR PAYMENT AND PROGRESS PAYMENTS TO THE CONTRACTOR

10.3.1 The Engineer will, within ten days after the receipt of the Contractor's periodic estimate, either issue a recommendation for payment to the Authority, with a copy to the Contractor, for such amount as the Engineer determines is properly due, or notify the Contractor in writing his reasons for withholding a recommendation as provided in Subparagraph 10.7.1.

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10.3.2 The issuance of a recommendation for payment will constitute a representation by the Engineer to the Authority, based on the Engineer's observations, that the Work has progressed to the indicated point, and that to the best of the Engineer's knowledge, information and belief the Work indicated therein is in accordance with the Contract Documents (subject to evaluation upon Substantial Completion, to results of subsequent tests called for in the Contract Documents and to specific qualifications stated in the certificate), and that the Contractor is entitled to payment in the approved amount. The Engineer shall not certify the final payment until an inspection for final completion has been performed and the Authority has acted affirmatively on the Engineer's recommendation that the Project be accepted.

- 10.3.3 (a) Within fifteen (15) days after receipt from the Contractor, at the place designated by the Awarding Authority if such a place is so designated, of a recommendation for payment issued by the Engineer, the Awarding Authority will make a periodic payment to the Contractor of such amount designated in said recommendation for payment, less (1) a retention based on the Awarding Authority's estimate of the fair value of its claims against the Contractor and less (2) a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of Section 39F of Chapter 30 of the Massachusetts General Laws, and less (3) a retention equal to five percent of the approved amount of the periodic payment. After the receipt of a final recommendation for payment from the Contractor, as issued by the Engineer, recommending final payment, and within sixty-five days after (a) the Contractor fully completes the Work or substantially completes the Work so that the value of the Work remaining to be done is, in the estimate of the Awarding Authority, less than one percent of the original Contract Sum, or (b) the Contractor substantially completes the Work and the Awarding Authority takes possession for occupancy, whichever occurs first, the Awarding Authority shall pay the Contractor the entire balance due on the Contract less (1) a retention based on the Awarding Authority's estimate of the fair value of its claims against the Contractor and of the cost of completing the incomplete and unsatisfactory items of Work and less (2) a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of Section 39F of Chapter 30 of the Massachusetts General Laws, or based on the record of payments by the

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Contractor to the Subcontractors under this Contract if such record of payments indicates that the Contractor has not paid Subcontractors as provided in Section 39F.

(b) The Awarding Authority may make changes in any recommendation for payment issued by the Engineer and submitted by the Contractor and the payment due on said recommendation for payment shall be computed in accordance with the changes so made, but such changes or any requirement for a corrected recommendation for payment shall not affect the due date for the periodic payment; provided, that the Awarding Authority may, within seven days after receipt of the recommendation for payment, return to the Contractor for correction any recommendation for payment which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such recommendation for payment shall be the date of receipt of the corrected recommendation for payment in proper form and with arithmetically correct computations. The date of receipt of a recommendation for payment received on a Saturday or holiday shall be the first working day thereafter.

10.4 PAYMENTS TO SUBCONTRACTORS

10.4.1 Pursuant to Section 39F of Chapter 30 of the Massachusetts General Laws, the following provisions (a) through (h) shall apply with respect to payment of Subcontractors:

(a) Forthwith after the Contractor receives payment on account of a periodic estimate, the Contractor shall pay to each Subcontractor the amount paid for the labor performed and the materials furnished by that Subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the Subcontractor by the Contractor.

(b) Not later than the sixty-fifth day after each Subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the Subcontract less amounts retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of Work, shall be due the Subcontractor; and the Awarding Authority shall pay that amount to the Contractor. The Contractor shall forthwith pay to the Subcontractor the full amount received from the Awarding Authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the Subcontractor by the Contractor.

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(c) Each payment made by the Awarding Authority to the Contractor pursuant to Subparagraphs (a) and (b) of this Paragraph for the labor performed and the materials furnished by a Subcontractor shall be made to the Contractor for the account of that Subcontractor; and the Awarding Authority shall take reasonable steps to compel the Contractor to make each such payment to each such Subcontractor. If the Awarding Authority has received a demand for direct payment from a Subcontractor for any amount which has already been included in a payment to the Contractor or which is to be included in a payment to the Contractor for payment to the Subcontractor as provided in Subparagraphs (a) and (b), the Awarding Authority shall act upon the demand as provided in this section.

(d) If, within seventy days after the Subcontractor has substantially completed the subcontract work, the Subcontractor has not received from the Contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the Contractor, less any amount retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the Subcontractor may demand direct payment of that balance from the Awarding Authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority, and a copy shall be delivered to or sent by certified mail to the Contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the Subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the Subcontractor has substantially completed the subcontract work. Within ten days after the Subcontractor has delivered or so mailed the demand to the Awarding Authority and delivered or so mailed a copy to the Contractor, the Contractor may reply to the demand. The reply shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority and a copy shall be delivered to or sent by certified mail to the Subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the Contractor and of the amount due for each claim made by the Contractor against the Subcontractor.

(e) Within fifteen days after receipt of the demand by the Awarding Authority, but in no event prior to the seventieth day after substantial completion of the subcontract work,

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the Awarding Authority shall make direct payment to the Subcontractor of the balance due under the subcontract including any amount due for extra labor and materials furnished to the Contractor, less any amount (i) retained by the Awarding Authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the Contractor in the sworn reply; provided, that the Awarding Authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by Subparagraph (d). The Awarding Authority shall make further direct payments to the Subcontractor forthwith after the removal of the basis for deductions from direct payments made as provided in parts (i) and (ii) of this subparagraph.

(f) The Awarding Authority shall forthwith deposit the amount deducted from a direct payment as provided in part (iii) of Subparagraph (e) in an interest-bearing joint account in the names of the Contractor and the Subcontractor in a bank in Massachusetts selected by the Awarding Authority or agreed upon by the Contractor and the Subcontractor and shall notify the Contractor and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the Contractor and the Subcontractor or as determined by decree of a court of competent jurisdiction.

(g) All direct payments and all deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant to Subparagraph (f) shall be made out of amounts payable to the Contractor at the time of receipt of a demand for direct payment from a Subcontractor and out of amounts which later become payable to the Contractor and in the order of receipt of such demands from Subcontractors. All direct payments shall discharge the obligation of the Awarding Authority to the Contractor to the extent of the such payment.

(h) The Awarding Authority shall deduct from payments to a Contractor amounts which, together with the deposits in interest-bearing accounts pursuant to Subparagraph (f), are sufficient to satisfy all unpaid balances of demands for direct payment received from Subcontractors. All such amounts shall be earmarked for such direct payments, and the Subcontractors shall have a right in such deductions

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prior to any claims against such amounts by creditors of the Contractor.

(i) If the Subcontractor does not receive payment as provided in Subparagraph (a) or if the Contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the Subcontractor and the Subcontractor does not receive payment for same when due less the deductions provided for in Subparagraph (a), the Subcontractor may demand direct payment by following the procedure in Subparagraph (d) and the Contractor may file a sworn reply as provided in that same Subparagraph. A demand made after the first day of the month following that for which the Subcontractor performed or furnished the labor and materials for which the Subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the Contractor. Thereafter the Awarding Authority shall proceed as provided in Subparagraphs (e), (f), (g) and (h).

10.4.2 "Subcontractor" as used in Subparagraph 10.4.1 shall mean a person approved by the Authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the Contractor.

10.4.3 The Contractor shall, by an appropriate agreement with each Subcontractor, require each Subcontractor to make payments to his Sub-subcontractors in a manner similar to that provided in Subparagraphs 10.4.1(a) and (b).

10.4.4 Except as set forth in Subparagraph 10.4.1 or as may be otherwise required by law, the Authority shall have no obligation to pay or to see to the payment of any moneys to any Subcontractor.

10.5 PAYMENTS AFTER COMPLETION

10.5.1 The following Subparagraphs 10.5.2 through 10.5.9 contain the provisions of Section 39G of Chapter 30 of the Massachusetts General Laws, which shall, when applicable, govern payments after completion:

10.5.2 Upon substantial completion of the work required by a contract with the Commonwealth, or any agency or political subdivision thereof, for the construction, reconstruction, alteration, remodeling, repair or improvement of public ways, including bridges and other highway structures, sewers and, water mains, airports and other public works, the Contractor shall present in writing to the Authority its certification that the Work has been substantially completed. Within twenty-one

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days thereafter, the Authority shall present to the Contractor either a written declaration that the Work has been substantially completed or an itemized list of incomplete or unsatisfactory work items required by the Contract sufficient to demonstrate that the Work has not been substantially completed. The Authority may include with such list a notice setting forth a reasonable time, which shall not in any event be prior to the contract completion date, within which the Contractor must achieve Substantial Completion of the Work. In the event that the Authority fails to respond, by presentation of a written declaration or itemized list as aforesaid, to the Contractor's certification within the twenty-one day period, the Contractor's certification shall take effect as the Authority's declaration that the Work has been substantially completed.

10.5.3 Within sixty-five days after the effective date of a declaration of a substantial completion, the Authority shall prepare and forthwith send to the Contractor for acceptance a substantial completion estimate for the quantity and price of the work done and all but one percent retainage on that work, including the quantity, price and all but one percent retainage for the undisputed part of each work item and extra work item in dispute but excluding the disputed part thereof, less the estimated cost of completing all incomplete and unsatisfactory work items and less the total periodic payments made to date for the work. The Authority also shall deduct from the substantial completion estimate an amount equal to the sum of all demands for direct payment filed by Subcontractors and not yet paid to Subcontractors or deposited in joint accounts pursuant to Massachusetts General Laws, Chapter 30 Section 39F, but no contract subject to said Section 39F shall contain any other provision authorizing the Authority to deduct any amount by virtue of claims asserted against the contract by Subcontractors, material suppliers or others.

10.5.4 If the Authority fails to prepare and send to the Contractor any substantial completion estimate required by Section 39G of Chapter 30 of the Massachusetts General Laws, on or before the date herein above set forth, the Authority shall pay to the Contractor interest on the amount which would have been due to the Contractor pursuant to such substantial completion estimate at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Boston from such date to the date on which the Authority sends that substantial completion estimate to the Contractor for acceptance or to the date of payment therefor, whichever occurs first. The Authority shall include the amount of such interest in the substantial completion estimate.

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10.5.5 Within fifteen days after the effective date of the declaration of substantial completion, the Authority shall send to the Contractor by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory work items, and, unless delayed by causes beyond his control, the Contractor shall complete all such work items within forty-five days after the receipt of such list or before the then contract completion date, whichever is later. If the Contractor fails to complete such work within such time, the Authority may, subsequent to seven days' written notice to the Contractor by certified mail, return receipt requested, terminate the Contract and complete the incomplete or unsatisfactory work items and charge the cost of same to the Contractor.

10.5.6 Within thirty days after receipt by the Authority of a notice from the Contractor stating that all of the Work required by the Contract has been completed, the Authority shall prepare and forthwith send to the Contractor for acceptance a final estimate for the quantity and price of the work done and all retainage on that work less all payments made to date, unless the Authority's inspection shows that work items required by the Contract remain incomplete or unsatisfactory, or that documentation required by the Contract has not been completed. If the Authority fails to prepare and send to the Contractor the final estimate within thirty days after receipt of notice of completion, the Authority shall pay to the Contractor interest on the amount which would have been due to the Contractor pursuant to such final estimate at the rate hereinabove provided from the thirtieth day after such completion until the date on which the Authority sends the final estimate to the Contractor for acceptance or the date of payment therefor, whichever occurs first, provided that the Authority's inspection shows that no work items required by the Contract remain incomplete or unsatisfactory. Interest shall not be paid hereunder on amounts for which interest is required to be paid in connection with the substantial completion estimate as hereinabove provided. The Authority shall include the amount of the interest required to be paid hereunder in the final estimate.

10.5.7 The Authority shall pay the amount due pursuant to any periodic, substantial completion or final estimate within thirty-five days after receipt of written acceptance of such estimate from the Contractor and shall pay interest on the amount due pursuant to such estimate at the rate hereinabove provided from that thirty-fifth day to the day of payment. In the case of periodic payments, the Authority may deduct from its payment a retention based on its estimate of the fair value of its claims against the Contractor, a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of Section 39F of said Chapter 30, and a retention to

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secure satisfactory performance of the contractual work not exceeding five percent of the approved amount of any periodic payment, and the same right to retention shall apply to bonded Subcontractors entitled to direct payment under Section 39F of said Chapter 30; provided, that a five percent value of all items that are planted in the ground shall be deducted from the periodic payments until final acceptance.

10.5.8 No periodic, substantial completion or final estimate or acceptance or payment thereof shall bar the Contractor from reserving all rights to dispute the quantity and amount of, or the failure of the Authority to approve a quantity and amount of, all or part of any work item or extra work item.

10.5.9 Substantial Completion, for the purposes of this Paragraph 10.5, shall mean either that the Work required by the Contract has been completed except for work having a contract price of less than one percent of the then adjusted total Contract Sum, or substantially all of the Work has been completed and opened to public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the Work required by the Contract. Substantial Completion shall be conclusively determined by the Engineer after inspection of the Work and in accordance with Subparagraph 10.9.1.

10.6 PAYMENT NOT ACCEPTANCE

10.6.1 No recommendation for payment of a periodic estimate, nor any progress payment made, nor any partial or full use or occupancy of the Project by the Authority, shall constitute an acceptance of any work not in accordance with the Contract Documents.

10.7 PAYMENTS WITHHELD

10.7.1 The Engineer may decline to recommend payment and may withhold his recommendation for payment in whole or in part, to the extent necessary to protect the Authority, if in his opinion he is unable to make representations to the Authority as provided in Subparagraph 10.3.2. If the Engineer is unable to make representations to the Authority as provided in Subparagraph 10.3.2 and to recommend payment in the amount of the periodic estimate, he will notify the Contractor as provided in Subparagraph 10.3.1. If the Contractor and the Engineer cannot agree on a revised amount, the Engineer will issue a recommendation for payment for the amount for which he is able to make such representations to the Authority. The Engineer may also decline to recommend payment or, because of subsequently discovered evidence or subsequent observations, he may nullify

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the whole or any part of any recommendation for payment previously issued, or, notwithstanding that the Engineer has issued a recommendation for payment, the Authority (in addition to and without limitation of any other rights and remedies of the Authority under the Contract Documents) may withhold payment of any amounts claimed to be due by the Contractor and certified for payment by the Engineer, in each case to such extent as may be necessary in order to provide for retention covering the fair value of the Authority's claims against the Contractor as provided in Subparagraph 10.5 and 10.6, which amounts may include, but shall not be limited to, the fair value of costs or losses arising from:

- .1 defective Work not remedied,
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims,
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment,
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum,
- .5 damage to the Authority or another contractor,
- .6 reasonable evidence that the Work will not be completed within the Contract Time.
- .7 failure to carry out the Work in accordance with the Contract Documents or other default by the Contractor under, or failure of the Contractor to comply with any provisions of, the Contract Documents, or
- .8 actual or anticipated claims for damages for delay.

If and when the grounds set forth above are removed without cost to the Authority, payment may be requested and shall be made for amounts withheld because of such grounds.

10.8 FAILURE OF PAYMENT

10.8.1 The Contractor's sole remedy for the Engineer's delay in approving a progress payment or the Authority's delay in paying the Contractor is the payment of interest as provided in Subparagraphs 10.4 and 10.5.

10.9 SUBSTANTIAL COMPLETION

10.9.1 When the Contractor considers that the Work, or a designated portion thereof which is acceptable to the Authority, is substantially completed as defined in Subparagraph 10.5.9,

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the Contractor shall prepare and submit to the Engineer three complete sets of all warranties and guarantees required by the Contract Documents, and a list of items to be completed or corrected in addition to the certification that the Work has been substantially completed as required by Paragraph 10.5. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. When the Engineer on the basis of an inspection determines that the Work or designated portion thereof is substantially complete, and when the Contractor has complied with the provisions of Paragraph 8.3 and all other conditions precedent to Substantial Completion provided for in the Contract Documents have been satisfied, the Engineer will then prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall state the responsibilities of the Authority and the Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall complete the items listed therein. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the Authority and the Contractor for their written acceptance of the responsibilities assigned to them in such Certificate. The Engineer's Certificate of Substantial Completion shall be submitted in sufficient time to permit the Authority to issue either a declaration that the Work has been substantially completed or an itemized list of incomplete or unsatisfactory work items as required by Paragraph 10.5.

10.9.2 Upon Substantial Completion of the Work or the occupancy or use by the Awarding Authority of the Work, or designated portion thereof, and upon application by the Contractor and certification by the Engineer, payment will be made in accordance with Subparagraphs 10.4 and/or 10.5.

10.10 FINAL COMPLETION AND FINAL PAYMENT

10.10.1 Subject to the provisions of Subparagraph 10.5 if applicable, upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final request for payment, the Engineer will promptly make such inspection and, when he finds the Work acceptable under the Contract Documents and the Contract fully performed, he will promptly issue a final recommendation for payment stating that, based on his observations and inspections, the Work has been completed and that to his best knowledge, information and belief the Work has been completed in accordance with the Contract

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Documents and that the entire balance found to be due the Contractor, and noted in said final recommendation, is due and payable. The Engineer's final recommendation for payment will constitute a further representation that the conditions precedent to the Contractor's being entitled to final payment as set forth in Subparagraph 10.11.2 have been fulfilled.

10.10.2 Neither the final payment nor the remaining retained percentage shall become due until the Contractor submits to the Engineer (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Authority or its property might in any way be responsible, have been paid or otherwise satisfied, (2) consent of the Contractor's surety to final payment and (3), if required by the Authority, other data establishing payment or satisfaction of all obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the Authority. If any Subcontractor refuses to furnish a release or waiver required by the Authority, the Contractor may furnish a bond satisfactory to the Authority to indemnify it against any such claim or lien. If any such claim or lien remains unsatisfied after all payments are made, the Contractor shall refund to the Authority all moneys that the latter may be compelled to pay in discharging such claim or lien, including all costs and reasonable attorneys' fees.

10.10.3 The making of final payment shall constitute a waiver of all claims by the Authority except those arising from:

- .1 unsettled liens.
- .2 faulty or defective Work appearing after Substantial Completion or not specifically accepted in writing by the Authority.
- .3 failure of the Work to comply with the requirements of the Contract Documents.
- .4 terms of any warranties or guarantees required by the Contract Documents, or
- .5 claims as to which the Authority shall have given the Contractor notice prior to final payment.

10.10.4 The acceptance of final payment shall constitute a release and waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final periodic estimate.

10.11 STORAGE OF MATERIALS OFF SITE

10.11.1 The Contractor and his Subcontractors shall obtain prior written approval from the Authority through the Engineer for

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permission to store materials to be incorporated in the Work, for which progress payments will be requested, at off-site locations. Any and all charges for storage, including insurance, shall be borne solely by the Contractor. Before approval, the Authority will require proper proof of insurance and a letter in which is furnished:

- .1 The name of the Contractor and/or Subcontractor leasing or owning the storage area.
- .2 The location of such storage space, including the storage area; i.e., the entire premises or certain areas of a warehouse giving the number of floors or portions thereof.
- .3 The date on which the material is first stored.
- .4 The value of the material stored.

10.11.2 The Contractor and his Subcontractors shall notify the Engineer and the Authority to inspect, at least once each month, the materials being stored at any off site location.

10.11.3 The Contractor and his Subcontractors shall mark each sealed carton with the name of the Project and the Engineer.

10.11.4 A perpetual inventory shall be maintained for all materials held in storage for which payment has been requested.

10.11.5 Payment for materials stored off site shall be at the sole discretion of the Authority. Any additional costs to the Authority resulting from storage of material off-site for which payment is requested, such as, but not limited to, travel expenses and time for inspectors, shall be backcharged to, and paid by, the Contractor. Title to materials stored off-site shall be transferred at the time at which the Authority pays for them.

10.12 INTERPRETATION

10.12.1 In the event of any conflict, discrepancy or ambiguity between or arising from any provisions of this Article 10 and the provisions of Sections 39F, 39G, 39K, and other applicable sections of Chapter 30 of the Massachusetts General Laws, the provisions of said sections of Chapter 30 of the General Laws shall be controlling.

10.13 PENALTIES FOR FALSE CLAIMS

10.13.1 The attention of the Contractor and all Subcontractors is drawn to Section 9B of Chapter 93 of the Massachusetts General Laws, which provides:

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Any person who shall make or cause to be made, or present or cause to be presented, for payment or approval, to or by any employee, department, agency, or public instrumentality of the commonwealth, or any political subdivision thereof, any claim upon or against any department, agency, public instrumentality of the commonwealth, or any political subdivision thereof, knowing such claim to be false, fictitious or fraudulent, or who, for the purpose of obtaining or aiding to obtain the payment or approval of such claim, makes, uses, or causes to be made or used, any false bill, receipt, voucher, roll, account, claim, certificate, affidavit, or deposition, knowing the same to contain any fraudulent or fictitious statement or entry, shall forfeit and pay to the commonwealth, or any political subdivision thereof, the sum of two thousand dollars and, in addition, double the amount of damages which the commonwealth or political sub-division thereof may have sustained by reason of the doing or committing of such act, together with the costs of the action. Any such action may be brought in the superior court of the county in which the person resides or has his principal place of business, or in the superior court department of the trial court for Suffolk county.

ARTICLE 11 - SAFETY AND PROTECTION**11.1 SAFETY PRECAUTIONS AND PROGRAMS**

11.1.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work, including, but not limited to, compliance by the Contractor and all Subcontractors with all safety precautions and programs required by any insurance carrier providing insurance coverage for the Authority or the Contractor in connection with the Project. Within five (5) days of receipt of the Notice to Proceed and prior to commencing work on the site, the Contractor shall submit to the Authority a safety plan which addresses the safety concerns contained in this article and any other safety issues occasioned by the specific nature of this project.

11.2 SAFETY OF PERSONS AND PROPERTY

11.2.1 The Contractor shall take all necessary precautions for the safety of, and shall provide all protection necessary to prevent damage, injury or loss to:

- .1 all employees on the Work and all other persons or other entities who may be affected thereby;
- .2 all the Work and all materials and equipment to be incorporated therein, whether in storage on or off the site; and

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- .3 other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, improvements and utilities not designated for removal, relocation or replacement in the course of construction.

Without limitation, the Contractor shall provide security watch service at all such times as are necessary to protect the interests of the Contractor and the Authority and to provide for the safety and security of the general public, employees and agents of the Authority and the Engineer, and other persons who may be affected by the Work, and to exclude unauthorized persons from the job site.

11.2.2 The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury or loss.

11.2.3 The Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities and other improvements.

11.2.4 The Contractor shall satisfactorily conduct his work at all highway crossings and along all highways, street and other ways in accordance with the permission and requirements of the property authorities. Vehicular traffic, including busses shall be routed over temporary detours during construction when required to maintain proper flow of traffic. The Contractor shall plan and conduct his operations in such a manner that the continuous flow of traffic is uninterrupted and with a minimum of inconvenience to the general public.

11.2.5 The Contractor shall preserve and protect from injury all animals and all trees not required to be removed and shall, if directed by the Engineer, trim branches of certain trees to be protected, in accordance with the best tree surgery practice. The Contractor shall assume all responsibility for the protection of property of adjacent owners so far as affected by his operations, and shall build and maintain such temporary fences as may be required to permit the reasonable use of such adjacent property and to exclude trespassers from the site.

11.2.6 Trees, brush, weeds, grass and other obstructions shall be removed from the sites of the proposed excavations when and as directed and may be removed from other areas only to the extent directed or permitted. The Contractor shall take all necessary precautions to prevent the starting or spreading of fires. No materials directed to be disposed of shall be burned.

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11.2.7 Where expressly permitted by the Engineer, the Contractor may use in various parts of the Work, without charge therefor, any surplus materials taken from the specified excavations in the areas to be occupied by structures to be constructed pursuant to this Contract. No borrow will be permitted from lands of the Authority or the Commonwealth, except for such excavations.

11.2.8 Blasting operations, if any are specifically approved by the Engineer, shall be conducted by experienced men and in strict accordance with the rules and regulations of the Massachusetts Department of Public Safety governing the keeping, storage, use, manufacture, sale, handling, transportation or other disposition of explosives, and such other rules and regulations as may be promulgated from time to time by authorities having jurisdiction.

When the use or storage of other hazardous materials or equipment is necessary for the execution of the Work, the Contractor shall exercise the utmost care and shall carry on such activities under the supervision of properly qualified personnel.

11.2.9 The Contractor shall not sell intoxicating liquors on or about the Work and shall neither permit nor suffer the sale, distribution, introduction or use upon or near the site, nor upon any other areas occupied or controlled by him, of products containing alcohol or controlled substances.

11.2.10 The Contractor shall promptly remedy all damage or loss (other than damage or loss insured under the property insurance carried by the Authority as provided in the insurance requirements contained in the Contract Documents) to any property referred to in Subparagraph 11.2.1 caused in whole or in part by the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible under this Article 11, except damage or loss attributable in whole or in part to the acts or omissions of the Authority or Engineer and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to his obligations under Article 5. In the event the Contractor or the Contractor's insurance company fails to provide the Authority with documentation sufficient in the Authority's sole discretion to remedy all damage and loss to any property referred to in this subarticle within thirty (30) days of notice from the Authority to the Contractor and the Contractor's insurance company of such damage or loss, the Authority reserves the right to submit any property damage claim alleged to be caused in whole or in part by the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable and for which the Contractor is responsible under this Article 11 ("Construction-Related Damage") to a damage review committee established by the Authority. Such damage review committee shall

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make a determination as to whether the alleged claim is Construction-Related Damage and if so, the value of the Construction-Related Damage. If the Authority determines, based on the recommendation of the damage review committee, to pay the property owner for Construction-Related Damage sustained by the property, the Authority shall withhold such cost from any amounts due the Contractor.

11.2.11 The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's Project Superintendent unless otherwise designated by the Contractor in writing to the Authority and the Engineer.

11.2.12 The Contractor shall not load or permit any part of the Work to be loaded so as to endanger its safety.

11.2.13 The Contractor shall provide and maintain in good operating condition suitable and adequate fire protection equipment, and shall comply with all recommendations regarding fire protection made by the representatives of the insurance company or companies carrying insurance on the Work or by the local fire chief or fire marshall. The site shall be kept orderly and clean, and all combustible rubbish shall be promptly removed regularly from the site.

11.2.14 The Contractor shall at all times protect excavations, trenches, buildings and materials from damage from rain water, ground water, back-up or leakage of sewers, drains and other piping, and from water of any other origin and shall remove promptly any accumulation of water. The Contractor shall provide and operate all pumps, piping and other equipment necessary to this end.

11.2.15 The Contractor shall take all reasonable precautions necessary to prevent loss or damage caused by vandalism, theft, burglary, pilferage, or unexplained disappearance of property of the Authority forming part of the Work, or located within those areas of the Project to which the Contractor has access. The Contractor shall have full responsibility for the security of such property of the Authority and shall reimburse the Authority for any such loss, damage or injury resulting from vandalism, theft, burglary, pilferage or unexplained disappearance to the extent that the same is not covered by the Authority's insurance.

11.2.16 If at any time the Engineer determines that the methods, procedures or programs employed by the Contractor to ensure the safety of persons or property as provided under this Article 11 or otherwise employed under the provisions of the Contract Documents are unsafe or inadequate, the Engineer may (but shall have no duty or obligation to) order the Contractor to increase or improve the safety, efficiency or adequacy thereof, and the Contractor shall promptly comply with such order without claim